# Wireless Internet Marine Service
# Service Description Document
# 6/05/03

**Part I - Mission Connection**

The National Weather Service (NWS) provides various marine weather warnings and forecasts for the public and disseminates these products through various means. Since there are fewer methods to receive weather information on water than on land, NWS often receives requests to improve ways to communicate marine information in interactions with marine users at boat shows, customer meetings, marine conferences, etc. This Product Description Document concerns an improved method to reach users of NWS marine products by reformatting existing NWS marine products (see list below) to support access via wireless internet protocols. This straightforward extension of existing NWS Internet capabilities requires minimal effort by NWS to reformat existing NWS marine products and provide them from existing NWS internet servers using Wireless Markup Language (WML) (see technical description below). These products are available to anyone provided they have an Internet Service Provider (ISP) who delivers the products to a device which supports WML. Since these products are in the public domain, they can also be acquired by intermediaries, repackaged, and retransmitted in accord with standard NWS product use policies.

During the experimental use period, Weather Forecast Office Newport, NC, will reformat the following marine products to support WML:

Coastal Waters Forecast (CWF)

.....

Continuation / expansion of this service will depend on the results of the experimental use period.

Comments

We are always seeking to improve our services based on user feedback. Comments on the use of wireless Internet language may be addressed to:

National Weather Service
533 Roberts Rd.
Newport, NC 28570

Attn: Tom Kriehn

E-mail comments can be sent to thomas.kriehn@noaa.gov

**Part II - Technical Description**

Wireless Internet access is accomplished through the Wireless Application Protocol (WAP), the wireless equivalent to hyper text transfer protocol (HTTP). The WAP is an open and public specification meeting industry standards. The language used for WAP is called Wireless Markup Language (WML) and is a subset of hyper text markup language (HTML). WML was designed for devices with small displays. Any current Internet text or HTML and some graphics can be converted to WAP/WML. WAP/WML allows suitably-equipped cell phones and Personal Data Assistants (PDAs) to receive our forecasts through a wireless ISP. The NWS WAP/WML forecasts are delivered directly from standard web servers to the Internet. WFO MHX is not acting as an ISP but merely as the originating source of the information. The wireless ISPs maintain and operate the necessary WAP gateways and cell networks that convert the Internet packets to digital radio and transmit the requested information to their customers.

Wireless networks have a limited bandwidth, and the available WAP-equipped cell phones and PDAs have very limited storage capacities. The end result is individual pages of information must be relatively small in size. Since marine products, such as the Coastal Waters Forecast (CWF), can be relatively lengthy, the WML-formatted messages must be split into a series of short segments, with links added to aid the users' navigation through the document. Since CWFs are prepared for marine zones, it is a simple job to transmit the CWF in zones rather than in a much larger all-in-one package. Each CWF zone product will be fed through the WML conversion and then be tested on a variety of publicly-available WAP emulators, just as any new HTML product must be tested on a wide variety of browsers, platforms, and screen resolutions before deployment

The CWF is issued four times a day and updated as necessary.